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(54) **PATCH ANTENNA DEVICE**

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a patch antenna device capable of coping with plural frequencies.

SOLUTION: A conductive member on the surface of a dielectric substrate 1 is worked into a shape provided with a basic patch part 3 and an additional patch part 4. The anode of a PIN diode 5 is connected to the patch part 3 and a cathode is connected to the patch part 4. In the case of not supplying a DC voltage for control to the diode 5, the patch part 3 and the patch part 4 are turned to an electrically disconnected state. When the DC voltage for the control is supplied so as to make a forward current flow to the diode 5, the patch part 3 and the patch part 4 are electrically connected. The effective size of an antenna element becomes the frequency lower than a resonance frequency in the case of not supplying the DC voltage and the two frequencies can be coped with.

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